

From: [Gray, David](#)
Subject: Hurricane Harvey
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Attachments: [image001.png](#)

Good morning MIT,
Warning – this is a lengthy but important email.

As we wrap up our response to Hurricane Harvey and turn to long-term recovery efforts, Sam and I wanted to thank everyone for their hard work and dedication. Our region's response would not have been a success without everyone's support. It has been a team effort and every division and office has contributed. Each success story is highlighted on our website at www.epa.gov/hurricane-harvey - from helping cities and towns restore drinking water to their citizens to helping counties by collecting orphaned containers of oil and chemicals scattered by the storm's landfill.

Please share our congratulations with you entire team for a job well done.

We appreciate your continued commitment to helping those affected by Hurricane Harvey.

David

Working together, the U.S. Environmental Protection Agency and the Texas Commission on Environmental Quality continue to coordinate with local, state and federal officials to address the human health and environmental impacts of Hurricane Harvey and its aftermath, especially the water systems in the affected areas. The TCEQ has approximately 500 people and EPA has 192 people assisting in response to this natural disaster.

As part of this coordination, a Unified Command was established between the EPA, the TCEQ, the General Land Office, and the U.S. Coast Guard to oversee all emergency response efforts. This Unified Command is supported by three operational branches in Corpus Christi, Houston, and Port Arthur. In addition to the EPA, the TCEQ, the GLO, and the USCG, multiple agencies and groups are supporting each of the operational branches, including the Texas National Guard, 6th Civil Support Team; the Arkansas National Guard, 61st Civil Support Team; the Oklahoma Task Force 1; and the Texas State Guard Engineering Group. Branch personnel are working to continuously monitor water and wastewater systems, as well as assess spills or discharges as a result of the storm.

As of Friday Sept 22, the following information is available:

Drinking Water: To date, about 2,238 drinking water systems have been affected by Harvey. Of those, 2,014 systems are fully operational, 48 have boil-water notices, and 5 are shut down. Both the EPA and the TCEQ are contacting remaining systems to gather updated information on their status. Assistance teams are in the field working directly with system operators to expedite getting systems back to operational status.

Wastewater and Sewage: The TCEQ has made contact with 1,219 wastewater treatment plants in the 58 counties within the Governor's Disaster Declaration. Of those, 9 are inoperable in the affected counties. The agencies are aware that releases of wastewater from sanitary sewers are occurring as a result of the historic flooding and are actively working to monitor facilities that have reported spills. Additionally, the agencies are conducting outreach and providing technical guidance to all other wastewater facilities in flood-impacted areas. Assistance teams will continue to be deployed to work directly with system operators to expedite getting systems back to operational status.

EPA continues to work with Texas Water Development Board and FEMA to identify opportunities to utilize State Revolving Funds from EPA to address immediate recovery and future resiliency efforts in Texas.

Flood Water: Water quality sampling will be focused on industrial facilities and hazardous waste sites. Floodwaters contain many hazards, including bacteria and other contaminants. Precautions should be taken by anyone involved in cleanup activities or any others who may be exposed to flood waters. These precautions include heeding all warnings from local and state authorities regarding safety advisories. In addition to the drowning hazards of wading, swimming, or driving in swift floodwaters, these waters can carry large objects that are not always readily visible that can cause injuries to those in the water. Other potential hazards include downed power lines and possible injuries inflicted by animals displaced by the floodwaters.

Critical Water Infrastructure: The TCEQ has made contact with the owners of the 340 dams in the impacted areas. There are 15 dams that have reported some type of damage. There have been no reports of downstream damage or loss of life. The TCEQ will be meeting with affected dam owners in the next week.

Superfund Sites: The EPA and the TCEQ continue to get updates about the status of specific sites from the parties responsible for ongoing cleanup of the sites. The TCEQ has completed the assessment of all 17 state Superfund sites in the affected area. There were no major issues noted. The TCEQ will continue to monitor sites to ensure no further action is needed in regards to the storm.

All 43 Superfund NPL sites in the hurricane affected area have been assessed. Of these, 42 sites have been cleared. The San Jacinto Waste Pits site requires additional follow up. The Responsible Parties are continuing cap repairs and maintenance activities under EPA oversight. The repair includes manual placement of armor rock that is placed on a pontoon and positioned over the deficient areas. The work is focused on the northwest corner of the temporary cap where the EPA dive team conducted sampling. All work is being conducted in accordance with the approved work plan and under EPA oversight. Post-hurricane Superfund site summaries based on preliminary data results are being published (www.epa.gov/hurricane-harvey) and quality assured data should be available in about 2 weeks.

Highlands Acid Pits UPDATED 9/16 [here](#).
United Creosoting Company UPDATED 9/16 [here](#).
Conroe Creosoting UPDATED 9/15 [here](#).
Brio UPDATED 9/22 [here](#).
U.S. Oil Recovery [here](#).
Tex Tin [here](#).
Sheridan Disposal Services [here](#).
Dixie Oil Processors [here](#).
Malone Service [here](#).
Crystal Chemical [here](#).
Star Lake Canal [here](#).
MOTCO [here](#).
Sol Lynn/Industrial Transformers [here](#).
Patrick Bayou [here](#).
Gulf States Utilities/North Ryan Street [here](#).
Sikes Disposal Pits [here](#).
Geneva Industries [here](#).
Triangle Chemical Company [here](#).
EVR-Wood Treating/Evangeline Refining [here](#).
Hart Creosoting Company [here](#).
American Creosote - Deridder UPDATE 9/18 [here](#).
Palmer Barge Line [here](#).
Gulf Coast Vacuum Services [here](#).
Harris/Farley Street [here](#).
D.L. Mudd, Inc. [here](#).
San Jacinto Waste Pits [here](#).
Alcoa/Lavaca Bay [here](#).
Jones Road [here](#).
French Unlimited Inc. [here](#).
Gulfco Marine Maintenance [here](#).
Mallard Bay Bulk Plant [here](#).
Brine Service Company [here](#).
Bailey Waste Disposal [here](#).
Falcon Refinery [here](#).
Rustin Foundry [here](#).
PAB Oil & Chemical Services, Inc [here](#).
Many Diversified Interest [here](#).
State Marine Services of Port Arthur [here](#).
South Cavalcade Street [here](#).
North Cavalcade Street [here](#).
SBA Shipyard [here](#).
Jasper Creosoting Company [here](#).
Petro-Chemical Systems [here](#).

Debris Management: The TCEQ and EPA released community flyer 'Managing Debris After a Natural Disaster' to provide easy guidelines for hauling debris to the curb [English Flyer](#), [Spanish Flyer](#), [Vietnamese Flyer](#). EPA Community Liaisons have been deployed across the Hurricane Harvey impacted area to provide federal and state guidance and best practices to thousands of individuals that area dealing with potential hazards in damaged or lost homes. The TCEQ has approved 166 Temporary Debris Management Sites in areas under the Federal or State Disaster Declaration designations. TCEQ regional offices and local authorities are actively overseeing the siting and implementation of debris and waste management plans in the affected area. EPA, TCEQ and Army Corps of Engineer field observers are visiting staging and landfills to ensure compliance with guidelines. View a map of all Temporary Debris Management Sites at [here](#).

Reconnaissance/Orphan Containers: The TCEQ continues to lead in monitoring facilities that have reported spills. Unified Command has completed reconnaissance activities associated with hurricane impacts. Orphan containers, which include drums and tanks, found floating in or washed up near waterways continue to be gathered, sorted and grouped by type, prior to shipping them off for safe, proper treatment and disposal. All branches of the Unified Command have collected over 980 orphan containers. The Unified Command is preparing collected oil and hazardous materials for proper disposal. Disposal should be completed within the next three weeks. USCG and Texas General Land Office will continue to complete Vessel Recovery activities.

Air Quality Monitoring: One of the many preparations for Hurricane Harvey included the EPA, the TCEQ, and other monitoring entities temporarily shutting down several air monitoring stations from the greater Houston, Corpus Christi, and Beaumont areas to protect valuable equipment from storm damage. Since then, state and local authorities have been working to get the systems up and running again as soon as possible. As of Friday Sept 22, the TCEQ's air monitoring network is operational 100 percent in Corpus Christi, 96 percent in Houston, and 86 percent in Beaumont. The TCEQ is working to get the complete network fully operational as soon as possible and we will notify the public when the 3 remaining monitors are online. Of the available air monitoring data collected from Aug. 24 through Sept. 21, all measured concentrations were well below levels of health concern.

Both TCEQ and EPA investigators have spent numerous hours, both day and night, monitoring neighborhoods and industrial fence lines with hand-held instruments, such as optical gas imaging cameras (OGIC), toxic vapor analyzers, summa canisters, and portable multi-gas monitors. The use of these tools allows for the most effective source identification for drifting volatile organic compound (VOC) plumes so that swift action can be taken to address the cause of these emissions. TCEQ investigators in the Houston, Corpus Christi, and Beaumont regional offices routinely conduct reconnaissance monitoring near industrial fence lines and adjacent communities. Reconnaissance monitoring has been conducted in these areas with increased frequency to identify potential emission sources. In furthering efforts to monitor storm impacted areas and address emission sources, the TCEQ conducted aerial surveys in the Houston and Beaumont areas using a helicopter equipped with an OGIC that can

image VOCs and other hydrocarbons invisible to the eye and EPA's Airborne Spectral Photometric Environmental Collection Technology (ASPECT) plane conducted real-time sampling of potential emission targets. ASPECT completed flyovers of the facilities impacted by the hurricane on September 11, 2017. The EPA completed air quality analyses using their Trace Atmospheric Gas Analyzer (TAGA) mobile monitoring system on September 20, 2017. The TAGA conducted monitoring in Houston (9/5-7 and 9/10-12), Deer Park (9/14), Baytown (9/15), Sweeny and Texas City (9/17), Beaumont, Port Arthur, Victoria, and Point Comfort (9/18), and Corpus Christi (9/19-20). The results from continuous air monitors, hand-held instruments, ASPECT and TAGA have shown no levels of immediate health concern.

TAGA data summary reports for September 5, 6, 7, 10, 11, 12, 13 are available under 'documents' section of this website. Two TAGA mobile air monitoring buses began monitoring air quality around additional industrial sources in Texas. Additional TAGA reports for September 14, 15, 17, 18, 19, 20 are available under 'documents' section of this website.

EPA also sent its aerial surveillance aircraft to conduct a screening level assessment to evaluate unreported or undetected releases from facilities with Risk Management and/or Response Plans within the hurricane impacted areas. EPA's plane instrumentation measured 13 chemicals. The Airborne Spectral Photometric Environmental Collection Technology (ASPECT) aircraft found no exceedances of the Texas comparison values. The screening level results from ASPECT were compared to the ASPECT list of the TCEQ's short-term Air Monitoring Comparison Values and found no exceedances of the short-term AMCVs. This [report](#) covers the flights dated from 4 September – 11 September 2017.

ASPECT Sept 11 Flight 2 [report](#)
ASPECT Sept 11 Flight 1 [report](#)
ASPECT Sept 10 Flight 2 [report](#)
ASPECT Sept 10 Flight 1 [report](#)
ASPECT Sept 9 Flight 2 [report](#)
ASPECT Sept 9 Flight 1 [report](#)
ASPECT Sept 8 Flight 2 [report](#)
ASPECT Sept 8 Flight 1 [report](#)
ASPECT Sept 7 Flight 2 [report](#)
ASPECT Sept 7 Flight 1 [report](#)
ASPECT Sept 6 Flight 2 [report](#)
ASPECT Sept 6 Flight 1 [report](#)
ASPECT Sept 5 Flight 1 [report](#)
ASPECT Sept 4 Flight 2 [report](#)
ASPECT Sept 4 Flight 1 [report](#)

Refineries/Fuel Waivers: EPA approved the request from the State of Texas to continue to waive requirements for fuels in Texas through the end of the month to help address the emergency circumstances in Texas from Hurricanes Harvey and Irma. **No Action Assurance Letters:** At the request of the State of Texas, EPA extended three No Action Assurance letters that are effective immediately to September 29, 2017. EPA will not pursue enforcement actions against tanker trucks for certain provisions of the Clean Air Act and parallel Texas regulations that relate to tank tightness and registration for tanker trucks. EPA will not pursue enforcement actions that relate to violations of provisions of the Clean Air Act for emissions of certain air pollutants from gasoline storage tanks during events known as "roof landings." EPA will not pursue enforcement actions that relate to violations of provisions of the Clean Air Act that require the operation of these devices at bulk fuel terminals.

EPA provided a No Action Assurance (NAA) for the import of 255 power generators by the Yamaha Motor Corporation, U.S.A. (Yamaha), to be donated for use in communities impacted by Hurricanes Harvey and Irma in Texas and Florida, to assist in recovery efforts. These power generation units do not bear the emission control information labels required by the Clean Air Act.

Arkema Plant Fire Update: The U.S. Environmental Protection Agency (EPA) has completed its response support to the Crosby Volunteer Fire Department and the Harris County Fire Marshal's Office for the catastrophic event at Arkema. A copy of EPA press release and summary information is [available](#).

Many of you read the September 18 [EPA@Work](#) article (Below) about using a new tool to share information.

Story map highlights EPA's Hurricane Harvey response

Thanks to the help of EPA on-scene coordinators, technical experts, and staff from across the nation, Texas is on its way to recovery from Hurricane Harvey. The story of EPA's response to Hurricane Harvey is captured in a [story map](#), which brings the agency's response to life through maps, images, and descriptions. This story map presents information on several components of the response effort, including:

- use of mobile labs to analyze various pollutants;
- assessments of damage to Superfund sites;
- support for impacted industrial facilities; and
- status of drinking and wastewater systems.

Many thanks to the following team members who developed the content and design for this terrific communications tool:

- Tonia Biggs and the entire Public Information Assist Team of Cary Martindale, Jenna Durant, Ed Mekeel, Leslie Rausher, Jonathan Wang, Bruce Fitch, Cindy Fanning;
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- Lahne Mattas-Curry, HQ Emergency Operations Center PIO; and
- Eric Delgado, Joe Schaefer, and Janine Latham from the National Data Team.

Be on the lookout for a separate story map – currently in development -- on EPA's Hurricane Irma response efforts.

EPA has created an online repository for [Hurricane Harvey Response Documents](#). Thanks to Pam Phillips, Mark Ford and their team for working quickly to make documents available to the public.